

**Multi-CD control High power cassette player
with FM/AM tuner**

SUPER TUNER III

Operation Manual

KEH-P4850

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Published by Pioneer Electronic Corporation.
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Pioneer

Printed in Thailand
<CRD2785-A/N> ES

<98J00F0T01>

ENGLISH

ESPAÑOL

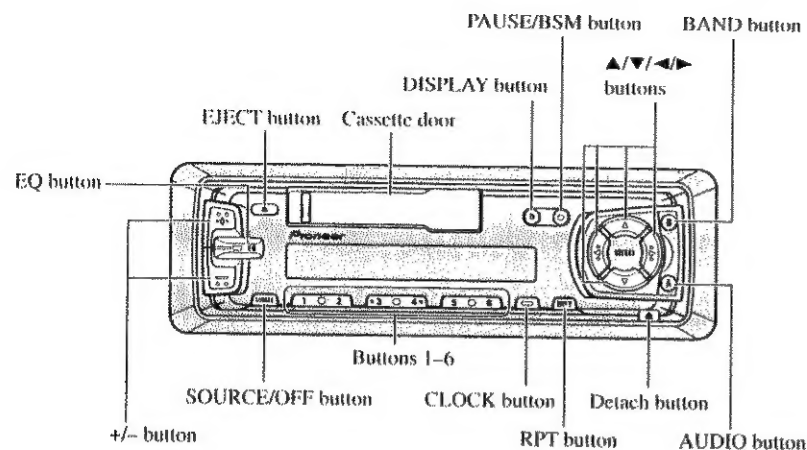
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Head Unit



Before Using This Product

About This Manual

This product features a number of sophisticated functions ensuring superior reception and operation. All are designed for the easiest possible use, but many are not self-explanatory. This operation manual is intended to help you benefit fully from their potential and to maximize your listening enjoyment.

We recommend that you familiarize yourself with the functions and their operation by reading through the manual before you begin using this product. It is especially important that you read and observe the "Precaution" on this page and in other sections.

This manual explains head unit operation. You can perform the same operations with the remote controller. The remote controller enables one-touch source changing and offers the convenience of ATT, a function not provided on the head unit.

Precaution

- Keep this manual handy as a reference for operating procedures and precautions.
- Always keep the volume low enough for outside sounds to be audible.
- Protect the product from moisture.
- If the battery is disconnected, the preset memory will be erased and must be reprogrammed.
- Should this product fail to operate properly, contact your dealer or nearest authorized Pioneer Service Station.

To Listen to Music

The following explains the initial operations required before you can listen to music.

Note:

- Loading a cassette in this product. (Refer to page 7.)

1. Select the desired source. (e.g. tuner)



Each press changes the Source ...

Each press of the SOURCE/OFF button selects the desired source in the following order:
CD player (one disc only) → Tuner → Tape → Multi-CD player → AUX

Note:

- In the following cases, the sound source will not change:
 - * When a product is not connected to this product.
 - * When no tape is set in this product.
 - * When no magazine is set in the Multi-CD player.
 - * When no disc is set in the CD player.
 - * When the AUX (external input) is set to OFF. (Refer to page 25.)

2. Raise or lower the volume.



3. Turn the source OFF.



Hold for 1 second or more

Basic Operation of Tuner

Reset the AM tuning step from 9 kHz (the factory preset step) to 10 kHz when using the tuner in North, Central or South America. (Refer to page 25.)

Manual and Seek Tuning

- You can select the tuning method by changing the length of time you press the ◀/▶ button.

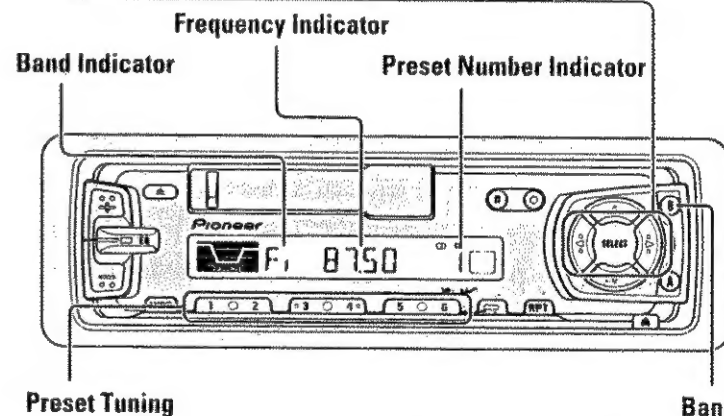
Manual Tuning (step by step)	0.5 seconds or less
Seek Tuning	0.5 seconds or more

Note:

- If you continue pressing the button for longer than 0.5 seconds, you can skip broadcast stations. Seek Tuning starts as soon as you stop pressing the button.

Note:

- "CD" stereo indicator lights when a stereo station is selected.



Preset Tuning

Band

- You can memorize broadcast stations in buttons 1 through 6 for easy, one-touch station recall.

Preset station recall	2 seconds or less
Broadcast station preset memory	2 seconds or more

Note:

- Up to 18 FM stations (6 in F1 (FM1), F2 (FM2) and F3 (FM3)) and 6 AM stations can be stored in memory.
- You can also use the ▲ or ▼ buttons to recall broadcast stations memorized in buttons 1 through 6.

F1 (FM1) → F2 (FM2)
→ F3 (FM3) → AM

Basic Operation of Cassette Player

Fast Forward/Rewind and Music Search

- Each press of the ► button selects Fast forward or Forward-Music Search.
FF (Fast forward) → F-MS (Forward-Music Search) → Normal Playback
- Each press of the ◀ button selects Rewind or Rewind-Music Search.
REW (Rewind) → R-MS (Rewind-Music Search) → Normal Playback

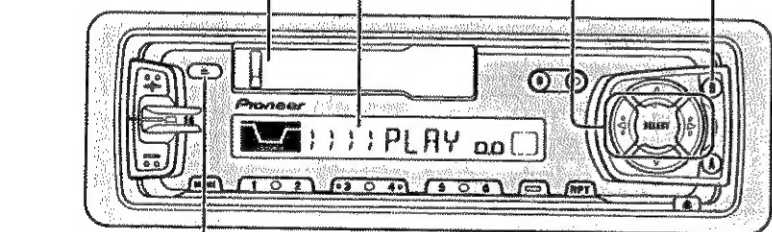
Note:

- Fast forward/Rewind and Music Search can be canceled by pressing the BAND button.

Cassette Loading Slot

Direction Indicator

Direction Change



Eject

Note:

- The Tape function can be turned ON/OFF with the cassette tape remaining in this product. (Refer to page 5.)

Basic Operation of CD Player (one disc only)

This product can control a CD player (one disc only).

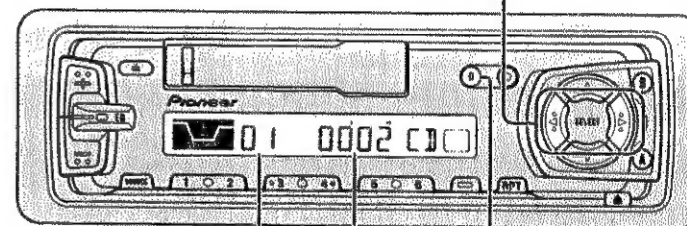
Track Search and Fast Forward/Reverse

- You can select between Track Search or Fast forward/Reverse by pressing the ◀► button for a different length of time.

Track Search	0.5 seconds or less
Fast-forward/Reverse	Continue pressing

Note:

- If the CD player cannot operate properly, an error message such as "ERROR-14" is displayed. Refer to the CD player owner's manual.



Track Number Indicator

Displaying Disc Titles

- Press the DISPLAY button, to change the Disc Title display of the current disc.

Note:

- When a Multi-CD player is not connected to this product, this function does not work.
- If you switch displays when disc titles have not been input, "NO TITLE" is displayed.
- Repeat the preceding operation to return to the normal display.

Basic Operation of Multi-CD Player

This product can control one or more multi-CD players. (There are some types of Multi-CD players such as "CDX-P630S" which you cannot connect more than one.)

Switching the Multi-CD Player

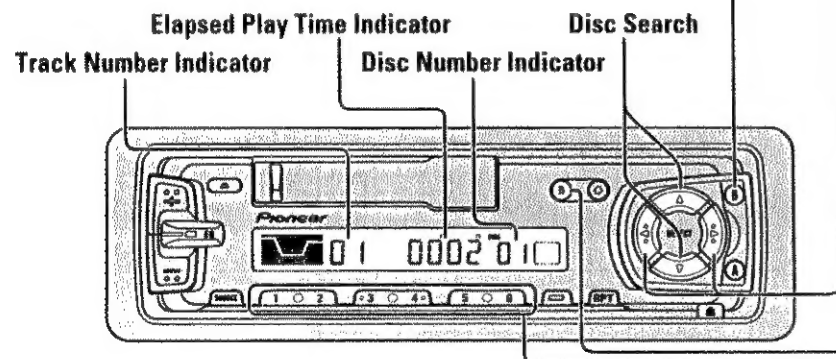
Using a multiple connection adapter lets you connect up to three Multi-CD players.

M-CD 1 → M-CD 2 → M-CD 3
(Displayed for about 2 seconds.)

Track Search and Fast Forward/Reverse

- You can select between Track Search or Fast forward/Reverse by pressing the ◀▶ button for a different length of time.

Track Search	0.5 seconds or less
Fast forward/Reverse	Continue pressing



Disc Number Search (for 6-Disc, 12-Disc types)

- You can select discs directly with the 1 to 6 buttons. Just press the number corresponding to the disc you want to listen to.

Note:

- When a 12-Disc Multi-CD Player is connected and you want to select disc 7 to 12, press the 1 to 6 buttons for 2 seconds or longer.

Disc Number Rough Search (for 50-Disc type only)

This handy function lets you select discs loaded in a 50-Disc Multi-CD Player using the 1 to 5 buttons. The 50 discs are divided into five blocks, with each of the 1 to 5 buttons assigned to a block.

- Select the desired block with the 1 to 5 button.

Note:

- After completing a rough search, use the ▲ and ▼ buttons to select a desired disc.

Displaying Disc Titles

- Press the DISPLAY button, to change the Disc Title display of the current disc.

Note:

- If you switch displays when disc titles have not been input, "NO TITLE" is displayed.
- Repeat the preceding operation to return to the normal display.

Note:

- The multi-CD player may perform a preparatory operation, such as verifying the presence of a disc or reading disc information, when the power is turned ON or a new disc is selected for playback. "READY" is displayed.
- When a magazine is loaded into a 50-Disc type Multi-CD Player, information on all the discs in the magazine is read.
If you start playing a disc on a 50-Disc type Multi-CD Player before reading of information on all discs has been completed, reading of information stops part way through.
- If the multi-CD player cannot operate properly, an error message such as "ERROR-14" is displayed. Refer to the multi-CD player owner's manual.
- If there are no discs in the multi-CD player magazine, "NO DISC" is displayed.
- "LOAD" will be displayed in the following cases:
 - * If the disc in the extra tray is selected.
 - * If the disc is moved from the extra tray to the magazine.
(Refer to the 50-Disc type multi-CD player owner's manual.)
- You cannot use the "Ejecting a Single Disc", "Frequency Play", "Music Group Play" or "ABC Disc Title Search" functions with this product.

Tuner Operation

Local Seek Tuning

This function selects only stations with especially strong signals.

- Switch the Local ON/OFF with the DISPLAY button.



Best Stations Memory (BSM)

The BSM (Best Stations Memory) function stores stations in memory automatically.

- Press the PAUSE/BSM button for 2 seconds to switch BSM ON.

The stations with the strongest signals will be stored under buttons 1-6 and in order of their signal strength.



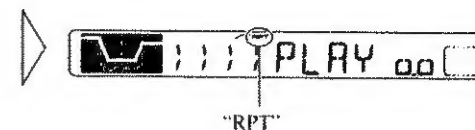
- To cancel the process, press the PAUSE/BSM button before memorization is complete.

Using the Cassette Player

Repeat Play

The repeat mode lets you hear the same song over again.

- Switch the Repeat Play ON/OFF with the RPT button.



Blank Skip

This function fast-forwards to the next song automatically if there is a long period of silence (12 seconds or longer) between songs.

- Switch the Blank Skip ON/OFF with the button 5.



Radio Intercept

This function allows you to listen to the radio during tape fast-forwarding/rewinding.

Note:

- The radio intercept function does not work during a Music Search operation.

- Switch the Radio Intercept ON/OFF with the button 6.



Repeat Play

Repeat Play plays the same track repeatedly.

- Switch the Repeat Play ON/OFF with the RPT button.



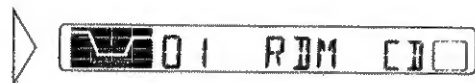
Note:

- If you perform Track Search or Fast-forward/Reverse, Repeat Play is automatically canceled.

Random Play

Random Play plays the tracks on a CD in random order for variety.

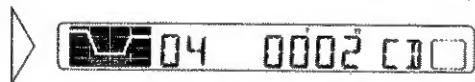
- Press the RPT button for 2 seconds to switch Random Play ON/OFF.



Scan Play

Scan Play plays the first 10 seconds or so of each track on a CD in succession.

1. Press the PAUSE/BSM button for 2 seconds to switch Scan Play ON.
2. When you find the desired track, cancel Scan Play by pressing the PAUSE/BSM button for 2 seconds.



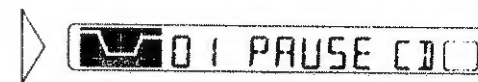
Note:

- Scan Play is canceled automatically after all the tracks on a disc have been scanned.

Pause

Let's you pause play of the track currently playing.

- Switch the Pause Play ON/OFF with the PAUSE/BSM button.



Disc Title Input

The CD player's Disc Title Input function is possible for up to 100 discs when one or more multi-CD players are installed.

Refer to "Disc Title Input" on page 17 under "Using Multi-CD Players".

Repeat Modes

There are four repeat modes (play range): One-track Repeat, Disc Repeat, Multi-CD player Repeat (the selected Multi-CD player) and All Repeat (all Multi-CD players). (Default mode is Multi-CD player Repeat.)

Select the desired Repeat Mode with the RPT button.

Multi-CD player Repeat (Nothing)
→ All Repeat (Nothing) → One-track Repeat ("RPT" indicator lights) → Disc Repeat ("RPT" and "DISC") indicators light)



Note:

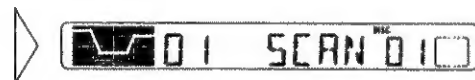
- All Repeat is available only when two or more multi-CD players are installed.
- If you go beyond the play range of the selected repeat mode by performing Track Search, Fast forward/Reverse or selecting another disc or Multi-CD player, the mode changes to an applicable Repeat mode.

Scan Play

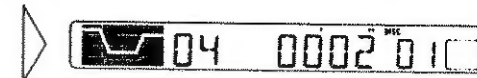
In the Disc Repeat mode, the beginning of each track on a single disc is scanned for about 10 seconds. In the Multi-CD player Repeat and All Repeat modes, the beginning of the first track on each disc is scanned for about 10 seconds.

1. Press the PAUSE/BSM button for 2 seconds to switch the Scan Play ON.

After selecting the desired repeat mode play range from those referred to in "Repeat Modes" above, switch Multi-CD Player Scan Play ON.



2. When you find the desired track (or disc), cancel the Scan Play by pressing the PAUSE/BSM button for 2 seconds.



Indicator	Play range
"RPT" + "DISC"	Disc Repeat
Nothing	Multi-CD player Repeat
Nothing	All Repeat

Note:

- Scan Play is canceled automatically after all the tracks or discs have been scanned.

Random Play

Tracks are played at random within the selected repeat mode play range as explained in "Repeat Modes" on page 15.

Press the RPT button for 2 seconds to switch Random Play ON/OFF.



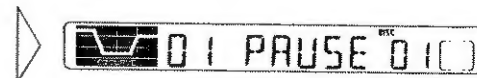
After selecting the desired repeat mode play range from those referred to in "Repeat Modes" on page 15, switch Multi-CD Player Random Play ON.

Indicator	Play range
"RPT" + "DISC"	Disc Repeat
Nothing	Multi-CD player Repeat
Nothing	All Repeat

Pause

Let's you pause play of the track currently playing.

Switch the Pause play ON/OFF with the PAUSE/BSM button.



Disc Title

Disc Title Input

You can input Titles up to 8 letters long for up to 100 discs. Using this function lets you easily search for and select a desired disc for play.

1. Play the disc you wish to input the disc title.
2. Select the Disc Title Input mode by pressing the **DISPLAY** button for 2 seconds.

3. Select letters, numbers and symbols with the **▲/▼** buttons.

To insert a space, select the flashing cursor "...".



4. Move the box left and right with the **◀/▶** buttons.



5. When you have completed title input, make the 8th letter flash, then memorize by pressing the **▶** button.



Note:

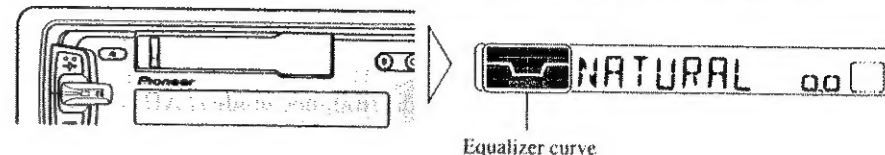
- Titles remain in memory, even after the disc has been removed from the magazine, and are recalled when the disc is reinserted.
- After the titles for 100 discs have been entered, data for a new disc will overwrite the data for the disc that has not been played back for the longest time.
- You can display the disc title of the disc currently playing. For details, refer to "Displaying Disc Titles" on page 10.

Audio Adjustment

Selecting the Equalizer Curve

You can switch between Equalizer curves.

- Move the EQ button up or down to select the desired Equalizer curve.



POWERFUL ↔ NATURAL ↔ VOCAL ↔ CUSTOM ↔ EQ FLAT
↔ S-BASS

Note:

- "CUSTOM" stores an equalizer curve you have made adjustments to. (Refer to "Equalizer Curve Adjustment" on page 19.)

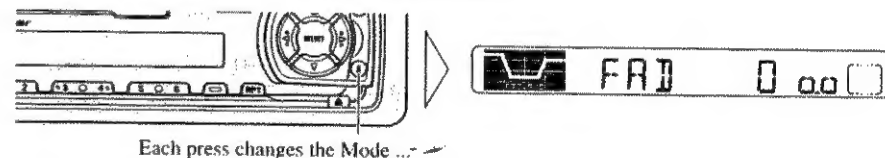
Entering the Audio Menu

With this Menu, you can adjust the sound quality.

Note:

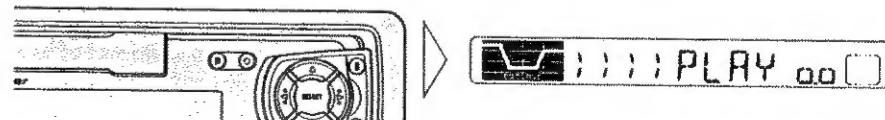
- After entering the Audio Menu, if you do not perform an operation within about 30 seconds, the Audio Menu is automatically canceled.

1. Select the desired mode in the Audio Menu.



2. Operate a mode.

3. Cancel the Audio Menu.



Audio Menu Functions

The Audio Menu features the following functions.

Balance Adjustment (FAD)

This function allows you to select a Fader/Balance setting that provides ideal listening conditions in all occupied seats.

1. Press the **AUDIO** button and select the Fader/Balance mode (FAD) in the Audio Menu.

2. Adjust front/rear speaker balance with the **▲/▼** buttons.

"FAD F15" – "FAD R15" is displayed as it moves from front to rear.



3. Adjust left/right speaker balance with the **◀▶** buttons.

"BAL L9" – "BAL R9" is displayed as it moves from left to right.



Note:

- "FAD 0" is the proper setting when 2 speakers are in use.

Equalizer Curve Adjustment (EQ-L/M/H)

You can adjust equalizer curve settings as desired. Adjusted equalizer curve settings are memorized in "CUSTOM".

1. Press the **AUDIO** button and select the Equalizer mode (EQ-L/M/H) in the Audio Menu.

2. Select the band you want to adjust with the **◀▶** buttons.

EQ-L ↔ EQ-M ↔ EQ-H



3. Boost or attenuate the selected band with the **▲/▼** buttons.

The display shows "+6" – "-6".



"◀ CUSTOM EQ"

Note:

- If you make adjustments when a curve other than "CUSTOM" is selected, the adjusted curve is stored in memory as a "CUSTOM" curve. Also, the displayed curve switches to that selected before adjustments were made.

Loudness Adjustment (LOUD)

The Loudness function compensates for deficiencies in the low and high sound ranges at low volume. You can select a desired Loudness level.

1. Press the **AUDIO** button and select the Loudness mode (LOUD) in the Audio Menu.

2. Switch the Loudness function ON/OFF with the **▲/▼** buttons.



"LOUD"

3. Select the desired level with the **◀▶** buttons.

LOW ↔ MID ↔ HI



Front Image Enhancer Function (FIE)

The F.I.E. (Front Image Enhancer) function is a simple method of enhancing front imaging by cutting mid- and high-range frequency output from the rear speakers, limiting their output to low-range frequencies. You can select the frequency you want to cut.

Precaution:

- When the F.I.E. function is deactivated, the rear speakers output sound of all frequencies, not just bass sounds. Reduce the volume before disengaging F.I.E. to prevent a sudden increase in volume.

Continued overleaf.

1. Press the AUDIO button and select the F.I.E. mode (FIE) in the Audio Menu.

2. Switch the F.I.E. function ON/OFF with the ▲/▼ buttons.



3. Select the desired frequency with the ◀/▶ buttons.

100 ↔ 160 ↔ 250 (Hz)



Note:

- After switching the F.I.E. function ON, select the Fader/Balance mode in the Audio Menu, and adjust front and rear speaker volume levels until they are balanced.
- Switch the F.I.E. function OFF when using a 2-speaker system.

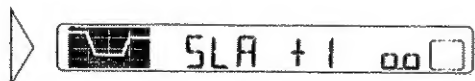
Source Level Adjustment (SLA)

The SLA (Source Level Adjustment) function prevents radical leaps in volume level when switching between sources. Settings are based on the FM volume level, which remains unchanged. (Since the FM volume is the control, SLA is not possible in the FM modes.) The AM, cassette, CD and AUX levels can all be adjusted. (The CD player (one disc only) and multi-CD player are set to the same level adjustment setting automatically.)

1. Compare the FM volume with the volume of the other source. (e.g. Cassette player.)
2. Press the AUDIO button and select the SLA mode (SLA) in the Audio Menu.

3. Increase or decrease the level with the ▲/▼ buttons.

The display shows "+4" – "-4".



Theft Protection

The front panel of the head unit is detachable to discourage theft.

Detaching the Front Panel

1. Eject the front panel.

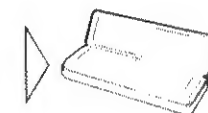


2. To remove the front panel, pull its right-hand side toward you.

Take care not to grip it tightly or drop it.

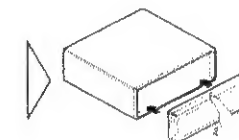


3. Use the protective case provided to store/carry the detached front panel.



Replacing the Front Panel

- Replace the front panel by clipping it into place.



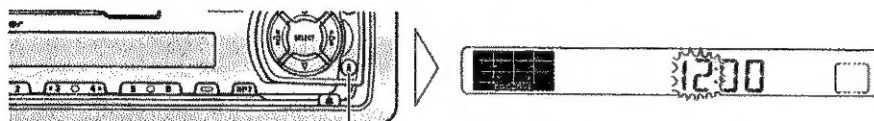
Precaution:

- Never use force or grip the display tightly when removing or replacing the front panel.
- Avoid subjecting the front panel to excessive shocks.
- Keep the front panel out of direct sunlight and high temperatures.

With this menu, you can perform initial settings for the unit.

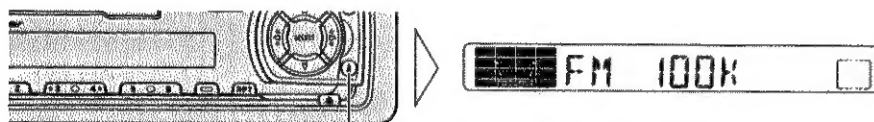
Entering the Initial Setting Menu

1. Switch the source OFF.
2. Enter the Initial Setting Menu with the sources OFF.



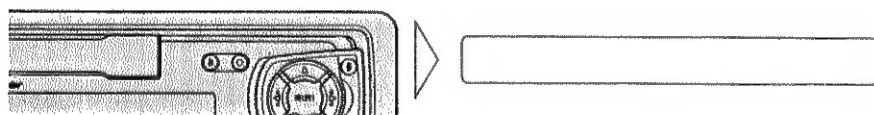
Hold for 2 seconds

3. Select a desired mode.



Each press changes the Mode ...

4. Operate a mode.
5. Cancel the Initial Setting Menu.



Note:

- Holding down the AUDIO button for 2 seconds also cancels the Initial Setting Menu.

Initial Setting Menu Functions

Setting the Time

This is the mode for setting the time on the unit's clock display. (Refer to page 26 for details concerning the clock display.)

1. Press the AUDIO button and select the Time setting mode in the Initial Setting Menu.

2. Select "Hour" or "Minute" with the ◀/▶ buttons.



3. Set as desired with the ▲/▼ buttons.



As soon as you switch to "Minute", the seconds start counting from 00.

Setting the FM Tuning Step (FM)

The tuning step employed by Seek Tuning in the FM mode can be switched between 100 kHz (preset at the factory) and 50 kHz.

1. Press the AUDIO button and select the FM Tuning Step mode (FM) in the Initial Setting Menu.

2. Select the desired tuning step with the ◀/▶ buttons.



Note:

- If Seek Tuning is performed in 50 kHz steps, stations may be tuned in imprecisely. Tune in the stations with Manual Tuning or use Seek Tuning again.

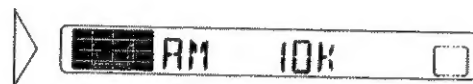
Initial Setting Menu

Setting the AM Tuning Step (AM)

The tuning step employed in the tuner's AM band can be switched between 9 kHz and 10 kHz per step. Reset the tuning step from 9 kHz (the factory preset step) to 10 kHz when using the tuner in North, Central or South America.

Specifications	Initial Setting	New Setting
Tuning Steps	9 kHz	10 kHz
Frequency range	531 - 1,602 kHz	530 - 1,710 kHz

1. Press the **AUDIO** button and select the AM Tuning Step mode (AM) in the Initial Setting Menu.
2. Select the desired tuning step with the **◀/▶** buttons.



Switching the AUX Mode (AUX)

It is possible to use auxiliary (AUX) equipment with this product.
Activate the AUX mode when using external equipment with this product.

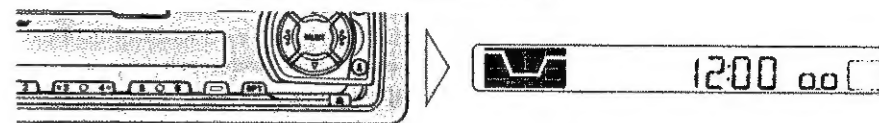
1. Press the **AUDIO** button and select the AUX Setting mode (AUX) in the Initial Setting Menu.
2. Switch the AUX ON/OFF with the **▲/▼** buttons.



Other Functions

Displaying the Time

- To turn the time display ON with the source ON.



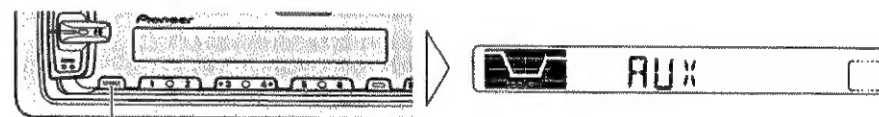
The time display disappears temporarily when you perform another operation, but the time indication returns to the display after 25 seconds.

Using the AUX Source

It is possible to use auxiliary (AUX) equipment with this product.
To listen to auxiliary equipment, switch the AUX mode in the Initial Setting Menu ON, and then select the desired source.

Selecting the AUX Source

- Select AUX. (Refer to page 5.)

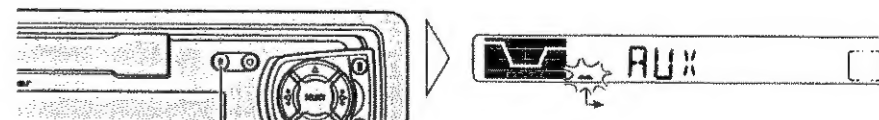


Each press changes the Source ...

AUX Title Input

The display title for AUX source can be changed.

1. Select the Aux Title Input mode by pressing the **DISPLAY** button for 2 seconds.



Hold for 2 second

2. Input the Aux Title.

Refer to "Disc Title Input" on page 17, and perform procedures 3 to 5 in the same way.

Precaution

About the Cassette Player

- A loose or warped label on a cassette tape may interfere with the eject mechanism of the unit or cause the cassette to become jammed in the unit. Avoid using such tapes or remove such labels from the cassette before attempting use.
- The music search and repeat functions may not work properly with the following kinds of recorded tapes because the gap between songs cannot be found correctly.
 - * A tape with a gap of 4 seconds or less between songs.
 - * A tape containing dialog, etc., with pauses lasting for 4 seconds or longer.
 - * A tape with an extremely quiet passage in the music lasting for 4 seconds or longer.

About Cassette Tapes

- Do not use tapes longer than C-90 type (90 min.) cassettes. Longer tapes can interfere with tape transport.
- Storing cassettes in areas directly exposed to sunlight or high temperatures can distort them and subsequently interfere with tape transport.



- Store unused tapes in a tape case where there is no danger of them becoming loose or being exposed to dust.

Cleaning the Head

If the head becomes dirty, the sound quality will deteriorate and there will be sound dropouts and other imperfections in performance. In this case, the head must be cleaned.

Specifications

General

Power source	14.4 V DC (10.8 – 15.1 V allowable)
Grounding system	Negative type
Max. current consumption	8.5 A
Dimensions	
(DIN) (chassis)	178 (W) × 50 (H) × 155 (D) mm
(nose)	188 (W) × 58 (H) × 19 (D) mm
(D) (chassis)	178 (W) × 50 (H) × 160 (D) mm
(nose)	170 (W) × 48 (H) × 14 (D) mm
Weight	1.2 kg

Amplifier

Continuous power output	17 W per channel min. into 4 ohms, both channels driven 50 to 15,000 Hz with no more than 5% THD.
Maximum power output	40 W × 4
Load impedance	4 Ω (4 – 8 Ω allowable)
Preout maximum output level/output impedance	2.2 V _{p-p} /1 kΩ
Equalizer (3 band equalizer)	
(Low)	±12 dB
(Mid)	±12 dB
(High)	±12 dB
Loudness contour	
(Low)	+3.5 dB (100 Hz), +3 dB (10 kHz)
(Mid)	+10 dB (100 Hz), +6.5 dB (10 kHz)
(High)	+11 dB (100 Hz), +11 dB (10 kHz)
	(volume: –30 dB)

Cassette player

Tape	Compact cassette tape (C-30 – C-90)
Tape speed	4.8 cm/sec.
Fast forward/rewinding time	Approx. 100 sec. for C-60
Wow & flutter	0.09% (WRMS)
Frequency response	Metal: 30 – 16,000 Hz (±3 dB)
Stereo separation	45 dB
Signal-to-noise ratio	61 dB (IEC-A network)

FM tuner

Frequency range	87.5 – 108 MHz
Usable sensitivity	11 dBf (1.0 μV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity	16 dBf (1.7 μV/75 Ω, mono)
Signal-to-noise ratio	70 dB (IEC-A network)
Distortion	0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response	30 – 15,000 Hz (±3 dB)
Stereo separation	40 dB (at 65 dBf, 1 kHz)

AM tuner

Frequency range	531 – 1,602 kHz (9 kHz) 530 – 1,710 kHz (10 kHz)
Usable sensitivity	18 μV (S/N: 20 dB)
Selectivity	50 dB (±9 kHz) 50 dB (±10 kHz)

Note:

- Specifications and the design are subject to possible modification without notice due to improvements.